

REMARKS

I. INTRODUCTION

Claims 1, 2, 9, and 17 have been amended. Thus, claims 1-19 remain pending in the present application. Support for the amendments can be found at least at ¶ [0032] of the specification. No new matter has been added. In light of the above amendments and the following remarks, Applicant respectfully submits that all presently pending claims are in condition for allowance.

II. 35 U.S.C. § 112 REJECTIONS SHOULD BE WITHDRAWN

Claims 9, 10, 17 and 18 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to distinctly claim the subject matter considered to be the invention. In light of the above amendments to these claims, Applicant respectfully requests the withdrawal of this rejection.

III. 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN

Claim 1 stands rejected under 35 U.S.C. § 103(a) for being unpatentable over “HART, Field Communication Protocol, Application Guide” (“the Guide”) in view of Andreas et al. (U.S. Patent No. 6,928,501) and further in view of Brooke (U.S. Patent No. 5,909,591).

Claim 1 recites “[a] method for automatically configuring a HART multidrop system, the system including a master device and a plurality of slave devices coupled to the master device, *each of the plurality of slave devices having a unique identifier*, the method comprising the steps of: connecting the slave devices; switching on a power source of the master device for the slave devices; *transmitting a HART command "Write polling address" as a broadcast command from the master device with a polling address not equal to zero, the HART command being preprogrammed to cause the slave devices to (i) automatically switch to a multidrop mode and (ii) obtain an identical address not equal to zero; and changing the identical addresses for the slave devices to a unique address for each slave device.*”

As conceded by the Examiner, The Guide does not disclose transmitting the HART command as a broadcast command such that each of the slaves obtains an identical address not equal to zero, which is changed to a unique address for each slave device.

Moreover, the Examiner has conceded that the arguments made in response to the § 103(a) rejections of claims 1-19 with respect to Brooke in the previous office action are, in fact, persuasive. (See 9/11/08 Office Action, p. 2, ll. 1-3). In order to cure the deficiencies of the Guide and Brooke, the Examiner relies on Andreas. However, Andreas discloses a serial device daisy chaining method, which means that the slaves (clients) are coupled to each other in a serial manner. Andreas discloses that “[t]he devices are “daisy-chained” such that the SDI input for any serial device is provided by the SDI THRU output of a preceding device in the chain, with the exception of the first device 220 in the chain which receives its SDI signal from the SDO of the bus master 210.” (See Andreas, col. 3, ll. 32-42). So, only the first client gets serial data directly from the master (server). This client then relays this data to the next client, and so forth. This aspect of the Andreas disclosure does not meet the limitations of claim 1 because claim 1 relates to a method in which all clients are addressed by the server at the same time in a parallel manner, i.e. in a *broadcast* mode.

Furthermore, Andreas teaches that after a first channel identifier is transmitted from the server to the client, the identifier is then compared with an internal identifier by that particular client. Andreas explains that “[t]he CID is modified as it cascades through the daisy chain. This permits all serial devices to compare their respective received CIDs with the same pre-determined value.” (*Id.*, col. 4, ll. 3-5). Thus, if the first channel identifier is not similar to the internal identifier, the first channel identifier is changed by that particular client, i.e. decremented. The decremented first channel identifier is then transmitted to the next client of the daisy chain, where it is compared to the same internal identifier. Again, if the internal identifier is different from the decremented first channel identifier, it is further decremented and transmitted to the next client, and so forth. In contrast to this teaching, according to the claimed invention, the slaves do not change a value transmitted from the server and do not transmit it to other clients.

Still further, the Examiner relies on Andreas to teach the changing of identical addresses to a unique address. However, it is respectfully submitted that Andreas explicitly teaches away from this feature. Andreas discloses that “[i]nstead of assigning an individual unique static address to each serial device for comparison with a channel identifier communicated to all the serial devices, the devices use the same common pre-determined value for comparison with a received channel identifier.” (See Andreas, col. 1 l. 65- col. 2 l. 2). Therefore, it is respectfully submitted that Andreas fails to cure the above mentioned deficiencies of the Guide and Brooke.

Applicant respectfully submits that the Guide, Andreas, and Brooke, taken alone or in any combination, fail to teach “*each of the plurality of slave devices having a unique identifier*” as well as “*transmitting a HART command "Write polling address" as a broadcast command from the master device with a polling address not equal to zero, the HART command being preprogrammed to cause the slave devices to (i) automatically switch to a multidrop mode and (ii) obtain an identical address not equal to zero; and changing the identical addresses for the slave devices to a unique address for each slave device*” as recited in claim 1. Thus, it is respectfully submitted that claim 1 is allowable.

Claims 2 - 19 stand rejected under 35 U.S.C. 103(a) as unpatentable over The Guide in view of “About HART: Part 1”(“About HART”), in further view of Andreas, and further in view of Brooke.

Claim 2 recites limitations substantially similar to those of claim 1 including “*each of the plurality of slave devices having a unique identifier*” and “*transmitting a HART command "Write polling address" as a broadcast command from the master device with a polling address not equal to zero, the HART command being preprogrammed to cause the slave devices connected to the master device to (i) automatically switch to a multidrop mode and (ii) obtain an identical address not equal to zero*” along with “*changing the identical addresses for the slave devices to a unique address for each slave device.*”

For at least the same reasons as discussed above in regard to claim 1, it is respectfully submitted that claim 2 is not rendered obvious by The Guide, About HART, Andreas and

Brooke, taken alone or in any combination, and that the rejection of this claim should be withdrawn. Because claims 3 - 10 depend from and include all of the limitations of claim 2, it is respectfully submitted that these claims are also allowable.

Similarly, claim 11 recites a HART multidrop system, comprising “a plurality of slave devices” and “a master device having a power source for the slave devices, the slave devices being coupled to the master device” in combination with “a control unit switching on the power source to automatically configure the HART multidrop system and *transmits a HART command "Write polling address" as a broadcast command with a polling address not equal to zero, the HART command causing each of the slave devices connected to the master device to be automatically switched to a multidrop mode and receive an identical address not equal to zero, the identical addresses for the slave devices capable of being changed to individual addresses for each of the slave devices.*”

For at least the same reasons as described above in regard to claim 1, it is respectfully submitted that claim 11 is not rendered obvious by The Guide, About HART, Andreas and Brooke, taken alone or in any combination, and that the rejection of this claim should be withdrawn. Because claims 12 - 19 depend from and include all of the limitations of claim 11, it is respectfully submitted that these claims are also allowable.

CONCLUSION

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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